



APPENDIX I - CRITICAL SYSTEMS

A. CRITICAL SYSTEMS LIST

The practice of performing maintenance on any critical multiple system may present opportunities for error. Maintenance of all multiple critical airplane systems at the same time or by the same individual or team presents the potential for similar errors being introduced onto multiple systems. This risk of error can be offset through staggered maintenance, varying maintenance personnel, developing specific processes for critical system maintenance and educating maintenance personnel about critical systems.

System maintenance requirements should be purposely designed to avoid working on critical redundant systems during a single maintenance visit. Additional processes or instructions such as checklists, cross checking work performed, using tooling provided by the airframe manufacturers and engine companies or additional functional tests should be developed for those occasions when such maintenance cannot be avoided during maintenance visits.

Boeing has long advocated that operators stagger scheduled maintenance on multiple critical systems such as engines. Boeing has emphasized such recommendations through Service Letter 737-SL-05-004-A. This service letter specifically discusses engines, however, other critical systems exist on the B737. The following B737 critical systems have scheduled maintenance requirements and are included in this appendix for consideration in the separation of tasks to address multiple system error potential.

- Air conditioning
- Electrical power
- Fire protection
- Fuel
- Hydraulics
- Ice and Rain
- Navigation
- Pneumatics
- Auxiliary Power
- Engines

This list is intended as an aid to help raise awareness for scheduled maintenance on critical system. This appendix lists all scheduled maintenance requirements for the above critical systems that specifically require the mechanic to physically break into multiple critical systems (e.g. borescopes or filter changes on both engines). This list is intended to raise airline awareness at the maintenance planning level for critical system maintenance involving multiple similar systems. It provides all scheduled maintenance requirements that are applicable to critical systems and are recommended in the B737 MPD document. This appendix may be used as a beginning baseline list for an airline to create it's own complete listing reflective of their specific maintenance processes.



B. PAGE FORMAT EXPLANATION

1. MPD ITEM NUMBER

Unique numeric identifier for each task .

2. ENGINE APPLICABILITY

Applicable Engine (ENG) Model:

- CFMI = CFM56-7

3. TASK DESCRIPTION

Description of the task to be performed.



737-600/700/800/900/900ER MAINTENANCE PLANNING DOCUMENT

CRITICAL SYSTEMS DATA

MPD Item #	Engine Applicability	Task Description
72-180-01	CFMI	Borescope inspection of the left engine combustion chamber.
72-180-02	CFMI	Borescope inspection of the right engine combustion chamber.
72-190-01	CFMI	Borescope inspection of the left engine double annular combustion chamber. (If installed)
72-190-02	CFMI	Borescope inspect of the right engine double annular combustion chamber. (If installed)
72-200-01	CFMI	Borescope inspection of the left engine HPT nozzle.
72-200-02	CFMI	Borescope inspection of the right engine HPT nozzle.
72-210-01	CFMI	Borescope inspection of the left engine HPT blades.
72-210-02	CFMI	Borescope inspection of the right engine HPT blades.
72-320-01	CFMI	Detailed inspection of the left engine fwd sump, aft sump, AGB/TGB magnetic chip detectors or debris monitoring system detectors and scavenge screens for particles.
72-320-02	CFMI	Detailed inspection of the right engine fwd sump, aft sump, AGB/TGB magnetic chip detectors or debris monitoring system detectors and scavenge screens for particles.
73-010-01	CFMI	Replace the left engine fuel filter element.
73-010-02	CFMI	Replace the right engine fuel filter element.
79-010-01	CFMI	Remove and replace the left engine oil supply filter element.
79-010-02	CFMI	Remove and replace the right engine oil supply filter element.
79-040-01	CFMI	Remove and replace the left engine oil scavenge filter element.
79-040-02	CFMI	Remove and replace the right engine oil scavenge filter element.

